

REMARKS

In the Office Action mailed January 10, 2008, the Examiner rejected claims 32 and 34-56. By way of the foregoing amendments and the markings to show changes, Applicants have amended claims 32, 35, 41, 45, 50, and 52, with canceled claims 37 and 56. No new matter has been added. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art.

I. Examiner In-Person Interview

Applicants would like to thank Examiner Michael Tolin for the time and courtesy extended to Applicant's Representative David Zdurne during an in-person Examiner's Interview conducted on March 19, 2008. In that interview, the outstanding claim rejections were discussed with respect to the previously submitted pictures showing unexpected results. It was further discussed a proposed amendment that might be used to distinguish over the prior art. Applicants have amended the claims to more specifically define the expandable vibration damping material being maintained in place **by one of its own external surfaces** along a side portion of the door reinforcement and positioned generally opposing the external panel structure of the door assembly. On this basis, Applicants respectfully request reconsideration of the rejected claims and also request that the claims be allowed.

II. Support for the Amended Claims

Applicants have amended claims 32, 45, and 52 to additionally describe the method of the present invention. Support for the amended claims under 35 USC §112 can be found on page 2 at paragraph [0015] for "providing a hollowed metal door reinforcement;" page 3 at paragraph [0018] and page 4 at paragraph 27 for "providing an expandable vibration damping material including an active polymer formulated in pellet form that is dry to touch and having a diameter that ranges from about 1.0 to about 20 mm, each pellet having an expandable foammable material, at least partially encapsulated in an adhesive shell," pages 3 and 4 at paragraph [0022] for "applying, with an extruder and according to an automated process, [[an]] the expandable vibration damping material in a viscoelastic state such that the damping material flows onto the external surface portion and is in bonding contact over at least a portion of the exposed surface portion of the reinforcement prior to expansion, wherein the expandable vibration damping material is maintained in place on the external surface portion of the door

reinforcement as the expandable vibration damping material hardens and bonds thereto"; FIGS. 1-3 and page 3 at paragraph [0017] for "mounting the door reinforcement, with the expandable vibration damping material thereon, to the door assembly such that the door reinforcement spans fore-aft across a door and bridges the door assembly at a first and second end thereby positioning the expandable vibration damping material within a hollow cavity between the door reinforcement and the external panel structure of the door assembly, wherein the expandable vibration damping material is maintained in place **by one of its own external surfaces** along a side portion of the door reinforcement within a portion of the cavity that is spaced apart from and generally opposing the external panel structure;" page 3 at paragraph [0007] for "expanding, by exposure to heat, the expandable vibration damping material across hollow the cavity to contact and adhere to the exterior panel structure including a door inner panel, a door outer panel, or both so as to expand and adhesively bond thereto;" pages 3 and 4 at paragraph [0022] for "wherein the expandable vibration damping material, during expansion thereof, fills the cavity between the door reinforcement and the exterior panel structure for bonding the door reinforcement to the exterior panel structure such that the expandable vibration material cures and remains in place thereby providing a walled or expansive structure, which serves as a vibration reducing medium acting to reduce vibration during use of the door assembly and operation of the vehicle; and page 2 at paragraph [0010] for "wherein the expandable vibration damping material remains rigid at temperatures ranging from about -40°C to about 190°C, which are generally encountered by the exterior panel during operation of the vehicle."

III. Evidence of Unexpected Results and Commercial Success of the Claimed Composition

Applicants submit the affidavit of Todd Deachin (employee of L&L Products, Inc., Licensee of this application), which includes Exhibits A through E (included herein) showing that direct extrusion of a strip of expandable material to a door reinforcement of the present invention provides better results after expansion thereof as compared to a preformed strip of expandable material that is fastened to a door reinforcement using fasteners.

In summary, Exhibits D and E provide specific examples of identical compositions for "Foam-in-Place" products that were originally presented in the Response to Office Action filed on June 6, 2007. More specifically, Exhibit D provides Picture 1 and Exhibit E provides Picture 2, each showing Part A and Part B. PART A includes a strip of expandable material that has been attached to a door beam with fasteners and then expanded to "jump a gap" between the beam and a panel. PART B includes a strip of expandable material that has been extruded directly

onto a door beam and then expanded to “jump a gap” between the beam and a panel. In each instance of Exhibits D and E, the beams were positioned relative to the panels in a substantially identical manner. As can be seen, when the fasteners are employed (Part B), the expandable material, during expansion thereof, tends to sag and inconsistently adhere to the panel, the beam or both (sagging locations being labeled C). In contrast, when direct extrusion is employed (Part A), the expandable material, during expansion thereof, does not significantly sag and adheres to the panel in a much more consistent manner along the strip of expandable material. This ability to resist sag and adhere in a consistent manner provides for a more robust connection between the beam and the panel for performing the desired damping function recited in the claims.

Applicants submit the affidavit of Tom Kleino (employee of L&L Products, Inc., Licensee of this application), which includes Exhibits A through C and F (included herein) showing commercial success obtained through the licensing of the method for direct extrusion of expandable vibrational damping material to a door reinforcement for bonding thereto and expansion to a generally opposing external panel structure of a door assembly. In summary, the subject technology of the claimed invention has been licensed with an automotive supplier company (“Company”). Since 2003, Company/L&L has started to commercialize this technology by offering door beam products that include the directly extruded expandable vibrational damping material. Company/L&L have sold about 8 million door beams incorporating this technology such as the improvement in vehicle acoustics by damping vibration within the door assembly, which can be attributed to the ability to directly extrude an expandable vibration damping material in bonding contact with a door reinforcement and expanding the expandable vibration damping material to fill the cavity between the door reinforcement and an exterior panel for bonding the door reinforcement to the exterior panel structure of the door assembly while maintaining the expandable vibration damping material in place along a side portion of the door reinforcement that is generally opposing the exterior panel structure so as to reduce vibration characteristics of the door assembly as incorporated in the present invention; and to the ability to directly extrude an expandable vibration damping material in a viscoelastic state to bond with a door reinforcement, while becoming substantially dry and tack free upon bonding to the door reinforcement as incorporated in the present invention. These are characteristics cited in the claims.

Accordingly, the unexpected results for maintaining in place the expandable vibrational damping material (e.g., resisting sag) along a side portion of a door reinforcement have been obtained using the claimed method. On this basis, Applicant has presented the test results of

the claims and respectfully requests that the rejections of the claims be withdrawn and also requests that the claims be allowed.

IV. Claim Rejections under 35 USC 112

The Office Action rejected claims 32-44 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Without acquiescing in this suggestion, Applicants have amended the language where necessary to overcome the rejection.

V. Claim Rejections under 35 USC 103(a)

The Office Action rejected claims 32, 34-39, 41-43, 45-48, and 50-56 as being unpatentable over a 1995 MY Chrysler JA publication (hereinafter simply referred to as Chrysler) in view of Admitted Prior Art (specification, Page 1), Ligon et al. (US 5,358,397), and Hanley (US 5,266,133), and optionally Bryant (US 3,872,548). The Office Action rejected claims 40 and 43 as being unpatentable over Chrysler, Admitted Prior Art, Ligon, and Hanley, and optionally further in view of Bryant as applied to claims 32, 34-49, and 41-43 above and further in view of any one of Johansson (EP 0398586 A1); Kracke (US 5013597); or Ritzema (US 6024190). The Office Action rejected claim 44 as being unpatentable over Chrysler, Admitted Prior Art, Ligon, and Hanley, and optionally further in view of Bryant as applied to claims 32, 34-49, and 41-43 above and further in view of Kracke. The Office Action rejected claim 40 as being unpatentable over Chrysler, Admitted Prior Art, Ligon, and Hanley, and optionally further in view of Bryant as applied to claims 32, 34-49, and 41-43 above and further in view of Fitzgerald (US 2002/0074827). The Office Action rejected claim 49 as being unpatentable over Chrysler, Admitted Prior Art, Ligon, and Hanley, and optionally further in view of Bryant as applied to claims 45-48 and 50-56 above, and further in view of Johansson, Kracke, Ritzema, or Fitzgerald. Without acquiescing in this suggestion, Applicants have amended the language where necessary to overcome the rejection.

With reference to the Fitzgerald, Applicant requests clarification as to how Fitzgerald is prior art under 35 USC 103(a) such that Fitzgerald was published on June 20, 2002, which is after the priority date of August 14, 2000 for the present invention.

Under KSR, the Examiner has not met the KSR burden as to Chrysler in view of the amended claims. Secondly, Ligon and/or Hanley should not apply because i) there is no space (e.g., cavity) between a first part having the extruded material and a second part being expanded to across the space; ii) there is no teaching of an expandable vibrational dampening

material that expands to fill a portion of the cavity while generally resisting the tendency to sag during the step of expanding, by the exposure to heat; iii) there is no teaching of the use for the sealant/material as an expandable vibrational dampening material for bonding the expandable vibrational dampening material to a first surface and being maintained in place by one of its own external surfaces along the first surface while expanding across a cavity to a second surface for bonding thereto, iv) there is no teaching that the expandable vibration dampening material cures and remains in place thereby providing a walled or expansive structure, which serves as a vibration reducing medium acting to reduce vibration during use of the door assembly and operation of the vehicle; and v) there is no teaching of the particular combination of extruding an expandable vibrational dampening material to a door reinforcement and mounting the door reinforcement into a door assembly such that the vibrational dampening material is generally opposing an external panel structure of the door assembly, the expandable vibrational dampening material and the external panel structure, each being generally disposed perpendicularly to surface under the automotive vehicle, with a cavity therebetween (as well as transporting the vibration dampening system prior to mounting in the door assembly). Ligon and Hanley certainly are not described to be modified to work in the claims as amended. Accordingly, the present proposed claims are allowable.

Further, by the present amendment, it does not follow that the amended claims have become so perfect in their description that no one could devise an equivalent. After amendment, as before, limitations in the ability to describe the present invention in language in the patent claims naturally prevent the Applicants from capturing every nuance of the invention or describing with complete precision the range of its novelty or every possible equivalent. See, Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 62 USPQ2d 1705 (2002). Accordingly, the foregoing amendments are made specifically in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicants would otherwise be entitled.

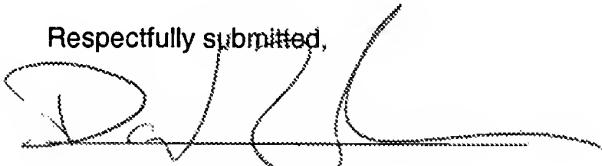
CONCLUSIONS

In view of Applicants' amendments and remarks, the Examiner's rejections are believed to be rendered moot. Accordingly, Applicants submit that the present application is in condition for allowance and requests that the Examiner pass the case to issue at the earliest convenience. Should the Examiner have any question or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920.

If for some reason Applicant has not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

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Respectfully submitted,



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